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## ABSTRACT

A total of 150 overweight female subjects entered a behavior modification weight loss program with extension home economists as therapists to determine the feasibility of state extension services as a vehicle for widespread dissemination of behavioral weight loss programs. The treatment, emphasizing stimulus control and nutrition education, consisted of 16 classes spaced over 20 weeks. One hundred eleven subjects completed treatment, posting a mean loss of 17.3 pounds. Significant therapist differences were noted, with therapists having higher attritic also having smaller weight losses in their groups. At the end of treatment subjects were civided into two maintenance conditions: Gradual withdrawal of treatment (GW) and continued treatment (CT). These differed in amount and fading of follow-up contact. The CT condition had more contact and a more abrupt termination of contact. By 18 months posttreatment the 63 subjects remaining had maintained over 80% of their treatment weight losses. No differences between maintenance conditions were observed at 3, 6, 12 or 18 months posttreatment. Therapist effects observed during treatment continued through the follow-up phase. (Author)



Extension home economists as therapists in a behavior modification weight loss program<sup>1,2</sup>

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Although behavior modification weight loss programs have produced generally good results, little attempt has been made to disseminate these programs on a large scale.

McReynolds, Lutz, Paulsen and Kohrs (1976) demonstrated that trained nutritionists could successfully implement behavioral programs. A follow-up to this study indicated that about 80% of the treatment losses were maintained for 13 months after treatment with a stimulus control treatment but only 50% in a more general behavioral treatment (Beneke, Paulsen, McReynolds, Lutz and Kohrs, 1976).

One potential avenue of large scale implementation for behavioral weight loss programs are home economists working for state extension services. These individuals have interest in weight loss more focal than that of most psychologists and can be found in most counties of every state.

Experiment 1 represents a pilot study done to evaluate the feasibility of using extension home economists (with nutrition and child development backgrounds) as therapists. Eight extension home economists in Missouri were trained in the use of behavior modification principles and in the use of a therapist's manual (see the FM treatment in McReynolds, et al. 1976 for details) by a consulting behavior therapist and nutritionists. Each home economist then recruited subjects in her own region and served as leader for 1-3 groups of ten subjects each.

A total of 150 female subjects, each 25-50 years of age and 20-60% above desirable weight for height, began a



treatment consisting of 16 classes spread over 20 weeks. Each class contained both behavioral and nutritional information. The behavioral portion emphasized stimulus control. Eating was broken into a six component chain (buying -- storing -- preparing -- serving -- eating -- cleaning-up) and specific guidelines were provided at each step to help participants reduce the visability and/or availability of foods. Written food records and use of "personal dishes" were also used as awareness techniques. The nutrition component of the program provided sufficient nutritional information to allow each subject to design her own meal plan to match her food preferences and lifestyle.

One hundred eleven subjects completed treatment and posted a mean weight loss of 17.3 lbs. Therapist differences significantly affected both attrition and weight loss, with those therapists having higher attrition rates also having lower mean weight losses in their groups.

Our previous research (Beneke, et al., 1976) had indicated that our treatment produced good posttreatment maintenance of weight but little additional loss. We suggested that the transition from weekly treatment classes to the 3, 6, 9, 12 and 18 month follow-up visits may have been too abrupt and that a more gradual fading out of the program would have resulted in continued weight loss. Experiment 2 explored this possibility by comparing a gradual withdrawal (GW) of



treatment and a continued treatment (CT) during the followup period.

Subjects completing treatment were divided between these two maintenance conditions, with the stipulation that leaders who conducted more than one group have groups in each condition and that the mean losses at the end of treatment be equivalent for the CT and GW conditions.

Subjects in both conditions received monthly telephone contacts for the first two months posttreatment and met as a group at the end of the third month. The CT subjects continued to meet monthly through the twelfth month posttreatment while the GW subjects met only at the sixth and twelfth month. Subjects in both conditions then met at the eighteenth month posttreatment. At each meeting subjects were weighed and topics previously covered were reviewed and reemphasized.

Maintenance results indicated that differences between the two conditions were nonsignificant at all points in time. At the end of the 18 month follow-up subjects had regained a mean of only 4.2 lbs. maintaining about 80% of their treatment loss. Therapist effect on attrition paralleled that found in experiment 1 with the therapists posting high attrition rates there continuing to do so during follow-up. In spite of therapist differences, results of the two experiments were equivalent to those obtained by research nutritionists (McReynolds, et al., 1976, Beneke, et al., 1976) and compare



favorably with results obtained elsewhere by behavior therapists indicating the feasibility of the extension program as a means of large scale implementation for a behavior modification weight loss program. Such an implementation is currently underway in Missouri.

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TABLE 1

MEAN TREATMENT WEIGHT LOSSES AND ATTRITION BY THERAPIST

THERAPIST	PERCENT ATTRITION	LOSS (n)
, 1 —	52,6	13 (9)
2	22.2	14.9 (7)
J	23.5	21.8 (13)
4	42.1	18.6 (11)
5	10.0	19.4 (9)
6	20.0	23.9 (16)
7	7.7	14.5 (24)
8	20.0	12,5 (16)



TABLE 2

MEAN WEIGHT LOSS FROM BEGINNING OF TREATMENT

TO 18 MONTHS POSTTREATMENT AND PERCENT

ATTRITION DURING FOLLOW-UP

## BY THERAPIST

THERAPIST	PERCENT ATTRITION	MEAN LOSS (n)
1	67	8.0 (3)
2	• 100	(0)
3	23.1	16.8 (10)
4	63.6	5.8 (4)
5	11.1	15.8 (8)
?	37.5	21.4 (10)
7	20.8	10.5 (19)
8	43.8	15.7 (9)

